

Japanese (PDF)

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[Translation done.]

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Notes:

1. Untranslatable words are replaced with asterisks (* ** *).
2. Texts in the figures are not translated and shown as it is.

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Dictionary: Last updated 04/14/2009 / Priority: 1. Chemistry / 2. Mechanical engineering / 3. Technical term

FULL CONTENTS

(57) [Claim(s)]

[Claim 1]A deodorization processing treatment method of a systematization thing characterized by a thing which froze an elevated temperature and a systematization thing produced by carrying out high voltage treatment with an auxiliary material which adds fish-and-shellfishes ground fish or a dropping body raw material if needed, and to do for afterbaking treatment.

[Claim 2] A deodorization processing treatment method of a systematization thing heat-treating an elevated temperature and a systematization thing produced by carrying out high voltage treatment in a solution of an oxidizing agent or a reducing agent with an auxiliary material which adds fish-and-shellfishes ground fish or a dropping body raw material if needed.

[Claim 3]A deodorization processing treatment method of a systematization thing heat-treating it in a solution of an oxidizing agent or a reducing agent with an auxiliary material which adds fish-and-shellfishes ground fish or a dropping body raw material if needed after freezing an elevated temperature and a systematization thing produced by carrying out high voltage treatment.

[Translation done.]

[Detailed Description of the Invention]

[Field of the Invention]

This invention relates to the deodorization processing treatment method of a new systematization thing.

[Description of the Prior Art]

With foodstuffs produced by elevated-temperature heat-treatment being carried out by using marine-products meat as a raw material, such as a fish meat sausage and canning, since an unpleasant smell by hydrogen sulfide etc. generally occurs by the pyrolysis of protein in a raw material, quality is spoiled remarkably in many cases.

Although an elevated temperature and the fibrous systematization thing produced by carrying out high voltage treatment have the texture Mr. Crab and like meat by a 2 axis cooking extruder and it is tasted by many people with relish, in recent years, [marine-products meat] By such an extruder systematization thing, since it is processed at a temperature (not less than 150 **) still higher than a fish meat sausage etc., a very strong unpleasant smell occurs. The main part is hydrogen sulfide. although to add odor inhibitor, such as sodium sulfite, in a raw material, and to control an offensive odor is tried in order to prevent this -- this -- also ***** (ing) -- it is not satisfied. It becomes a big problem when using this as food stuff, if it does not deodorize by carrying out secondary treatment of the systematization thing from these things.

An object of this invention is to solve this problem and to remove the offensive odor of an extruder systematization thing good in this way.

[Summary of the Invention]

This invention provides the deodorization processing treatment method of the systematization thing characterized by the thing which froze the elevated temperature and the systematization thing produced by carrying out high voltage treatment with the auxiliary material which adds fish-and-shellfishes ground fish or a dropping body raw material if needed, and to do for afterbaking treatment.

According to the second and third mode, this invention provides the method of heat-treating in the solution of an oxidizing agent or a reducing agent again, after freezing the above-mentioned systematization thing further again, the method of heat-treating the above-mentioned systematization thing in the solution of an oxidizing agent or a reducing agent, and,

[Concrete explanation of an invention]

This invention is explained in detail below.

In this invention, the ground fish or the dropping body of meat of fish and shellfishes is used as a raw material. Improper foods portions, such as the head, meat, internal organs, and a bone, are removed from various fishes, such as mackerel, a sardine, Tara, and SUKESOUTARA, as fish meat, and the thing or the thing which carried out the water pan, was carried out and was made into the shape

of ground fish of the shape of the dropping body ****(ed) by the fish meat extraction machine is used. Meat [of the crustacea, such as a crab and a shrimp.], other shell meat [various], and mollusk meat is also used. Only a kind is good and these [several sort of] may be combined again.

this invention -- the meat of these fish and shellfishes -- although it is good, various auxiliary materials can be added if needed. Flour, soybean meal, and potatostarch can be raised as an example of an auxiliary material. The kind, a compounding ratio, etc. are arbitrary and the systematization foodstuffs which are variously rich in variety by these selections can be obtained. Additives, such as a seasoning and a colorant, can also be added outside this.

the auxiliary material added to the ground fish or the dropping body of fish-and-shellfishes meat if needed in this way in this invention -- an elevated temperature -- high voltage treatment is carried out and a two axes type cooking extruder is usually used in that case. As everyone knows, by this extruder, it has temperature treatment, machinery treatment, and the capability to specifically process a transfer, compression, mixing, kneading, a shear, heating, sterilization, expansion, shaping, etc. for a short time, and is useful for manufacture of various foodstuffs. The composition of an extruder consists of five, a feeder, a barrel, a screw, a die, and a heater (or cooling unit), and flat shape, a circle configuration, and which double cylindrical derivation nozzle are provided at the die and one, or the tip of a die if needed, enabling free desorption.

As for barrel temperature, although the processing condition of an extruder is defined suitably, the number of rotations of per minute 50-3000 g and a screw is per minute 100 to 150 rotation, and 70-200 ** is [the speed of supply of the raw material of ground or fish-and-shellfishes meat and the dropping body, the auxiliary material added if needed, or an additive] preferred. When providing an derivation nozzle, it is preferred a heat melting state, nothing, and that it shall systematize by raising temperature by the first portion of an derivation nozzle subsequently, or making it the ****, and shall cool by the latter half part of an derivation nozzle further, and the temperature of goods shall be 100 ** or less in a shaft tip part.

thus, the elevated temperature and the systematization thing produced by carrying out high voltage treatment were frozen in the first mode of this invention -- afterbaking is carried out. actual -- about -10 **--30 ** -- desirable -- about -- after freezing at less than -20 **, you make it boil for 1 hour or more all over a considerable quantity, for example, 10 times the amount, or the hot water beyond it If it does in this way, after dissolving hydrogen sulfide in the water which exists in organization ghost meat the reason by which solubility increases at low temperature, and by freezing first, by next heating, hydrogen sulfide is made eluted out of a systematization thing, is volatilized, and it can deodorize efficiently.

In the second mode, it heat-treats in the solution of reducing agents,

such as oxidizing agents, such as potassium bromate and hydrogen peroxide, or ascorbic acid, and sodium sulfite, without freezing this systematization thing.

this disposal method -- usually -- the inside of the 10-times the amount hot water of a systematization thing -- 0.05 to 0.5% -- quantity addition is carried out. It is boiled 30 minutes or more all over the above-mentioned hot water. By doing in this way, hydrogen sulfide can be changed to an insoluble substance and it can deodorize.

The systematization thing produced by performing it above in the third mode Abbreviation-10--30 **, After freezing at less than abbreviation-20 ** preferably, it heat-treats in the solution of the oxidizing agent like the above, or a reducing agent (or after refrigerating), and it can do in this way, hydrogen sulfide can be removed, and deodorization can be aimed at still better. when ozone was generated and it heated [inside] on the occasion of heating, the knowledge of being more effective was carried out.

[Example]

A work example and the example of an examination are raised to below, and this invention is further explained to it.

become empty work-example 1 -- using 100 kg of **** hung down so, and the 2 axis cooking extruder (Made in the Suehiro Iron factory) which has a cylindrical cooling die 24 mm in diameter for 5 kg of potatostarch -- an elevated temperature -- high voltage treatment was carried out. Maintaining the speed of supply in that case to a part for 500g/, the screw speed maintained 200 rpm and barrel temperature at 200 **. After freezing the obtained systematization thing at less than - 20 **, it boiled all over 10-times the amount hot water [95 **] to outside systematization thing weight for 1 hour.

Work-example 2 It carried out like the work example 1, the 7-mm-thick band-like systematization thing was obtained, and it supplied by having made this into the oxidizing agent all over the hot water of potassium bromate of 0.05% of concentration (it is 10-times the amount water to systematization thing weight), and boiled at 95 ** for 30 minutes.

Work-example 3 The systematization thing of the refrigeration built like the work example 1 except having used a cylindrical frozen die 26 mm in diameter was thrown in all over the hot water (the body is carried out to systematization thing weight, and it is 10-times the amount water) which contains 0.1% of sodium sulfite as a reducing agent, and was boiled at 95 ** for 1 hour.

Example of an examination Based on the following valuation bases, the organoleptic test was conducted for the systematization thing produced by carrying out deodorization treatment like the above-mentioned work examples 1-3 by ten persons' panelist, and the removal degree of the offensive odor was judged. However, the evaluating point of the systematization thing before an offensive odor solvent wiping removal was the evaluation [all the members] 5.

evaluating point valuation-basis 5 -- 4 which senses a very strong smell -- 3 which senses a strong smell -- 2 which senses a weak smell -- 1

which senses a smell faint -- a smell is not felt at all The obtained result was as in the next table.

例	評価点	1	2	3	4	5
実施例 1		6	4	0	0	0
"	2	4	6	0	0	0
"	3	9	1	0	0	0

[Effect of the Invention]

When freezing and heating of an elevated temperature and the systematization thing by which high voltage treatment was carried out by this invention carry out concomitant use treatment by a cooking extruder, the offensive odor by hydrogen sulfide is removable good. It cannot deodorize effectively only by freezing or heat-treatment. If it heat-treats in the liquid containing an oxidizing agent or a reducing agent, without freezing the above-mentioned systematization thing and driving it like the second and third mode of this invention again, it can deodorize still better and is effective.

[Translation done.]

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